

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA**

ZOHO CORPORATION,

Plaintiff,

vs.

SENTIUS INTERNATIONAL, LLC,

Defendant.

CASE NO. 4:19-cv-0001-YGR

CLAIM CONSTRUCTION ORDER

Re: Dkt. Nos. 50, 52

Plaintiff Zoho Corporation (“Zoho”) brings this declaratory judgment action against defendant Sentius International, LLC (“Sentius”), alleging that it does not infringe United States Reissued Patent No. RE43,633 (the “’633 Patent”), titled “System and Method for Linking Streams of Multimedia Data to Reference Material for Display,” and United States Patent No. 7,672,985 (the “’985 Patent”), titled “Automated Creation and Delivery of Database Content.” Sentius counterclaims and alleges that Zoho does. Now before the Court are the parties’ claim construction disputes.

Having carefully considered the papers submitted, the parties’ arguments presented at the claim construction hearing on May 8, 2020, and the pleadings in this action, and for the reasons set forth below, the Court hereby adopts the constructions set forth herein.

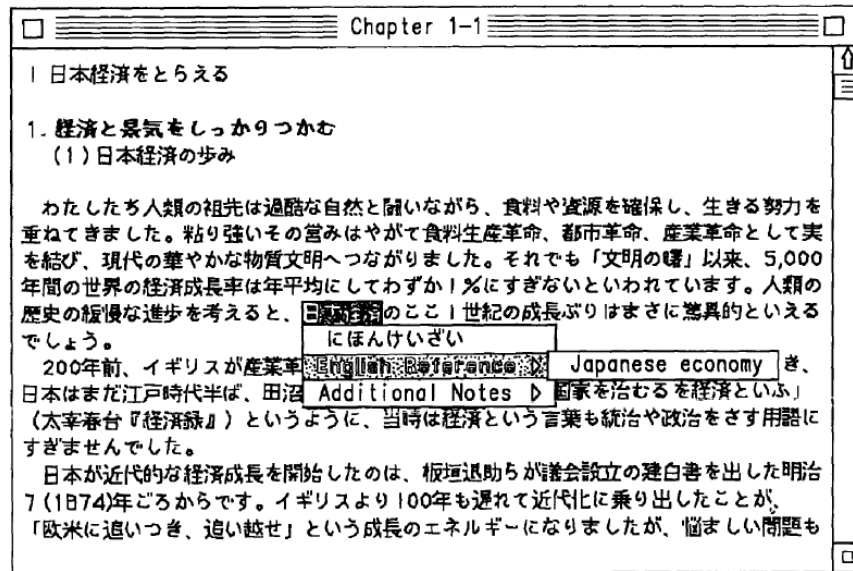
I. BACKGROUND

Sentius accuses Zoho of infringing the ’633 and ’985 Patents. The ’633 Patent is a reissue of U.S. Patent No. 5,822,720 (the “’720 Patent”), which was originally filed on July 8, 1996. The ’633 patent was reissued on September 4, 2012. The ’985 Patent was filed on October 30, 2006 and issued on March 2, 2010. The Court addresses the details of each patent below.

A. The '633 Patent

1. Overview

The '633 Patent is directed to a “novel indexing scheme” for displayed elements. ('633 Patent at 1:27-31.) The invention is particularly useful for learning a foreign language based on an ideographic alphabet, such as Japanese. (*Id.* at 1:28-31.) In these embodiments, a user can select an unfamiliar word or phrase to trigger display of supplemental information, such as pronunciation or readings (“yomi”), in a pop-up window. (*See id.* at 4:23-20.) Figure 3 shows an example of the pop-up window below.



To create the initial index that links terms to supplemental content, the '633 Patent uses three steps: word cuts, linking, and compilation. (*Id.* at 7:1-2.) First, the original source material is “cut up” or divided into individual words or characters using a visual editor. (*Id.* at 7:3-12.) Second, an index is created to identify the location of each word and link it to external source material (such as translations). (*Id.* at 7:13-21.) Finally, the text and references are recompiled to create the image that the user sees, which allows the user to click on the image to trigger the supplemental material. (*Id.* at 7:22-29.)

A “key feature” of the system lies in the method of linking the source material to the supplemental content. (*Id.* at 7:30-32.) When the words cuts are created, they are indexed “based upon the position offset from the beginning of the text.” (*Id.* at 7:32-34.) The start and end points

of the cut text are recorded in a look-up table together with links to external references. (*Id.* at 7:34-36.) Then, when the user clicks on the text image, the location of the click is converted into a position offset from the beginning of the text and compared to the start and end values in the look-up table. (*Id.* at 7:40-49.) The comparison of the offsets indicates which word was selected and the external reference to be displayed. (*Id.* at 7:47-49; *see also id.* at 6:48-67 & Fig. 2 (walking through user selection and look-up steps).)

Sentius asserts claims 17, 18, 62, 101, and 146. Claim 17 recites:

17. A system for linking textual source material to external reference materials for display, the system comprising:

means for determining a beginning position address of a textual source material stored in an electronic database;

means for cutting the textual source material into a plurality of discrete pieces;

means for determining starting point addresses and ending point addresses of the plurality of discrete pieces based upon the beginning position address;

means for recording in a look-up table the starting and ending point addresses;

means for linking the plurality of discrete pieces to external reference materials by recording in the look-up table, along with the starting and ending point addresses of the plurality of discrete pieces, links to the external reference materials, the external reference materials comprising any of textual, audio, video, and picture information;

means for selecting a discrete portion of an image of the source material;

means for determining a display address of the selected discrete portion;

means for converting the display address of the selected discrete portion to an offset value from the beginning position address;

means for comparing the offset value with the starting and ending point addresses recorded in the look-up table to identify one of the plurality of discrete pieces;

means for selecting one of the external reference materials corresponding to the identified one of the plurality of discrete pieces; and

means for displaying on a computer the selected one of the external reference materials.

2. Prosecution History

The original (applied-for) claims of the '720 Patent did not require determining the beginning position address for the source material or the start and end points of the discrete pieces. Rather, those limitations were added during prosecution to distinguish prior art. (*See* Dkt. No. 52-3 ("May 1996 Amendment") at 2-6.)

Specifically, during prosecution, the examiner rejected the claims of the '633 Patent predecessor based on obviousness over U.S. Patent No. 5,146,552 to Cassorla et al. (*See* Dkt. No. 52-8 ("Cassorla").) Cassorla describes an indexing system similar to the '633 Patent that uses the relative position of words in a text indexed by "tags" denoting headings and subtopics. (*See id.* at 6:10-41.) For example, a word may be indexed as: **h1=1, h2=1, h3=0, p=2 /w 3** to indicate the third word (**/w 3**) of the second paragraph (**p=2**) in the first topic heading (**h2**) of the first chapter (**h1**). (*Id.* at 6:34-41, 8:27-33.) The indexed word is then linked to supplemental content. (*See id.* at 8:33-35, Fig. 3.)

In response to the examiner's rejection, Sentius amended the claims to add "means for determining the beginning position of said source material image" and "means for determining a start point and an end point of said discrete pieces of said image based upon said beginning position of said source material image." (Dkt. No. 52-4 ("January 1996 Amendment") at 2.) Sentius argued that Cassorla did not meet these limitations because:

Cassorla specifically refers to a method for permitting a reader of electronically published text to create textual notes or annotations, and relate them back to the original document. Further, Cassorla requires a paragraph and word offset in which a link is determine by a paragraph number and an offset within the paragraph. Thus, Cassorla is limited to a specific format. In contrast, the claimed invention operates upon pure byte offsets that are unrelated to the data type, location, and format. Again, there is no teaching or suggestion of the use of multimedia information, such as audio, video, or image information.

(*Id.* at 10-11 (emphasis in original).) The examiner rejected this distinction because the *claim language* did not require the pure byte offsets. (*See* Dkt. No. 52-5 ("March 1996 Rejection") at 3 ("While applicant argues that the claimed invention operates upon pure byte offsets that are unrelated to data type, it is not seen where this is required by the claim language.")) In response, Sentius amended the claims to require "addresses" for the beginning position of the text and the

1 start and end points of the discrete pieces. (May 1996 Amendment at 2-6.) Sentius argued that:

2 Cassorla uses the relative position within the document to ‘fix’ the position of associated
3 annotations, thereby identifying ‘tags.’ The tags are subsequently used to retrieve the
4 annotations by reference to the position of the document itself. By contrast, the invention
5 creates tagless, media independent, linked documents. Accordingly, the Claims have been
6 amended to reflect that the address on the electronic database is determined for the source
7 material image. Support for this amendment is found in the Specification on page 10, line
8 19 through page 11, line 5, and in Fig. 2. No new matter has been added as a result of this
9 amendment.

10 The electronic address is recorded in a look-up table. Similarly, addresses for the start and
11 end points of discrete pieces of the image are determined and stored in the table. When a
12 portion of the image is selected by the user, its address is determined, and converted to an
13 offset value from the beginning position address of the source material image. The offset
14 value is then compared to the recorded start and end point addresses in the look-up table,
15 and the appropriate external reference is located.

16 (*Id.* at 6-7.) Aside from noting the examiner’s previous rejection, the May 1996 remarks did not
17 address “pure byte offsets.” (*See generally id.*) Rather, they focused on “the unique tagless
18 linking . . . of the invention” to distinguish the claims. (*Id.* at 7.) The examiner then allowed the
19 claims of the ’720 Patent to issue. Sentius proceeded to assert the claims in multiple litigations.

20 In 2000, Judge Armstrong in this District found the claims of the ’720 Patent invalid in
21 *Sentius Corp. v. Flyswat Inc.*, No. C 00-02233 SBA (N.D. Cal. Aug. 6, 2002). (Dkt. No. 52-2
22 (“*Flyswat Order*”).) Judge Armstrong found the claims invalid because the order of the steps was
23 nonsensical: the claims required operating on “discrete pieces” (word cuts) before cuts were made
24 and recited “links” before the links were created. (*Id.* at 11-13.) The claims also used “source
25 material image” to refer ambiguously to both the original source material and the recompiled
26 image and further failed to enable the “linking” step. (*Id.* at 14-16.)

27 In response, Sentius initiated the reissue proceedings that led to the ’633 Patent. The
28 reissue sought to add dependent claims and amend the independent claims to address the issues
identified by Judge Armstrong. (*See* June 8, 2009 Preliminary Amendment at 26-36, *available at*
<https://portal.uspto.gov/pair/PublicPair>.)¹ However, the examiner initially found that Sentius

¹ The prosecution history is subject to judicial notice as a public record. *See SEMICAPS Pte Ltd. v. Hamamatsu Corp.*, 393 F. Supp. 3d 802, 806 n.2 (N.D. Cal. 2019); Fed. R. Evid. 201.

failed to address the ambiguous treatment of “source material image”—one of the issues identified in *Flyswat*. (See March 22, 2011 Non-Final Rejection at 4-5.) In response, Sentius amended the claims to require “textual” source material for the original document and—in the process—changed “an address on said electronic database for the beginning position of said source material” to “a beginning position address of a textual source material stored in an electronic database.” (June 22, 2011 Amendment at 3.) In remarks, Sentius argued that the amendment addressed the examiner’s concerns but did not indicate that the amendment changed claim scope. (*Id.* at 42-44.)

Following a renumbering amendment, the examiner allowed the re-issued claims as a non-obvious improvement over Cassorla. (See August 15, 2012 Issue Notification at 3-4.)

B. The ’985 Patent

The ’985 Patent is directed towards building a database of annotated terms and delivering the content to users. (’985 Patent at 1:14-19.) While the ’633 Patent discusses linking terms to external content, the ’985 Patent focuses on the initial step of creating the external content for terms and then efficiently delivering it to a user. (*Id.* at 2:7-20.) In addition to translations and other references, the ’985 Patent may be used to provide sponsored content (e.g., advertisements) during a user’s web browsing activity. (See *id.* at 8:36-45, 11:25-34, claim 5.)

To build the database of linked content, the ’985 Patent relies on experts. (*Id.* at 1:15-19.) A web page or another source material is first parsed using natural processing to identify significant terms. (*Id.* at 6:51-60.) Terms of interest are then selected using rules (e.g., product names) and categorized by subject matter. (*Id.* at 6:61-7:21.) After categorization, the terms are sent to subject matter experts, who provide supplemental content. (*Id.* at 7:21-31.) The terms and their supplemental content are stored in a Term Database.² (*Id.* at 7:31-34, 4:13-26.) A “one-to-many” relationship governs the terms and content, such that the same term may be matched to multiple different types of content. (*Id.* at 4:18-26.)

² The ’985 Patent specification describes two relevant databases: a Term Database and a Template Database. The Term Database contains terms and their annotated content organized into dictionaries (e.g., a translation dictionary and a sponsored dictionary). (’985 Patent at 4:13-26, 13:33-67.) The Template Database contains templates that define parameters such as the look and feel of the content window and the source page tag structure. (*Id.* at 1:55-62, 10:20-25.)

To deliver the content to the user, the content publisher installs an “automated tagging engine” called a RichLink Processor within its network. (*Id.* at 2:44-47.) The RichLink Processor takes normal source pages and enhances them with links to annotated content. (*Id.* at 8:36-37.) Specifically, the RichLink Processor inserts links or tags that identify terms and connect them to external content. (*Id.* at 8:36-45, 9:9-11.) The tags may also identify whether a page should be processed, indicate the template that should be used to process the page, and identify metadata criteria that limit the results of tagging. (*Id.* at 8:54-67.) For example, a tag may identify the category of a page as “video games” to avoid providing unrelated content for terms having multiple types of associated content. (*Id.* at 8:61-65.)

To speed up the enhancing, the RichLink processor syndicates (downloads) data objects “necessary to perform high speed tagging of the text and to execute the tagging rules without requiring a connection to the database at the time of tagging” from the central databases. (*Id.* at 2:47-52.) The specification describes two such data objects: a lexicon object and a template object. (*Id.* at 8:51-56.) The lexicon object provides a local representation of the content of the Term Database used to match terms and create tags. (*Id.* at 9:19-29.) For example, the lexicon object might include the terms in a database and their annotated content, along with metadata like TermID and DictionaryID. (*Id.* at 9:23-29.) The template object provides a local representation of content from the Template Database used to provide rules for processing and linking a file. (*Id.* at 9:37-41.) For example, the template object might provide the format of the tag or limit the number of displays (impressions) for sponsored content.³ (*Id.* at 9:41-57, 10:26-62.)

Sentius asserts claims 1 and 11. Claim 1 recites:

1. A computer implemented method of processing database content, the method comprising the steps of:

Syndicating one or more data objects associated with a term database to one or more remote computers, wherein the one or more data objects contain data associated with one or more terms;

Parsing one or more documents to identify at least one term based on at least one

³ Although the specification focuses on tags, it also allows for other forms of linking, such as the one disclosed in the ’633 Patent. (’985 Patent at 7:35-39.)

rule;

Identifying content for the at least one term; and

Associating the at least one term with the identified content;

Wherein the one or more data objects associated with the term database provide a representation of at least a portion of the term database at the one or more remote computers and are used to link the identified content with the at least one term.

II. LEGAL PRINCIPLES

Claim construction is a question of law for the court. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 384 (1996). “The purpose of claim construction is to determine the meaning and scope of the patent claims asserted to be infringed.” *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008). During claim construction, the court must “fully resolve[]” the parties’ disputes over claim scope and assign “a fixed, unambiguous, legally operative meaning to the claim.” *Every Penny Counts, Inc. v. American Express Co.*, 563 F.3d 1378, 1383 (Fed. Cir. 2009).

A. The Ordinary Meaning Construction

Claim terms are generally given the “ordinary and customary meaning” that they would have to a person of ordinary skill in the art at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (en banc). The ordinary and customary meaning is not the meaning of the claim term in the abstract. *Id.* at 1313, 1321. Rather, it is “the meaning to the ordinary artisan after reading the entire patent.” *Id.*; see also *Trs. of Columbia U. v. Symantec Corp.*, 811 F.3d 1359, 1363 (Fed. Cir. 2016) (“The only meaning that matters in claim construction is the meaning in the context of the patent.”).

To determine the ordinary meaning, the court examines the claims, specification, and prosecution history of the patent, which form the “intrinsic evidence” for claim construction. *Phillips*, 415 F.3d at 1313-17; *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). “[T]he context in which a term is used in the asserted claim can be highly instructive.” *Phillips*, 415 F.3d at 1314. Additionally, “[d]ifferences among claims can also be a useful guide in understanding the meaning of particular claim terms.” *Id.* However, a person of ordinary skill

1 in the art is “deemed to read the claim term not only in the context of the particular claim in which
2 the disputed term appears, but in the context of the entire patent, including the specification.” *Id.*
3 at 1313. The specification “is always highly relevant to the claim construction analysis” and
4 usually “dispositive.” *Id.* at 1315 (citation omitted). Nevertheless, it is improper to import
5 limitations from the specification unless the patentee has demonstrated a clear intent to limit claim
6 scope. *Martek Biosci. Corp. v. Nutrinova, Inc.*, 579 F.3d 1363, 1381 (Fed. Cir. 2009).

7 In addition to the claims and specification, the prosecution history may be used “to
8 provide[] evidence of how the PTO and the inventor understood the patent.” *Phillips*, 415 F.3d at
9 1317. “Any explanation, elaboration, or qualification presented by the inventor during patent
10 examination is relevant, for the role of claim construction is to ‘capture the scope of the actual
11 invention’ that is disclosed, described and patented.” *Fenner Inv., Ltd. v. Celco P’ship*, 778 F.3d
12 1320, 1323 (Fed. Cir. 2015) (citation omitted). Finally, a court may consider extrinsic evidence—
13 such as dictionaries, inventor testimony, and expert opinion—if it is helpful. *Phillips*, 415 F.3d at
14 1319. However, extrinsic evidence “is unlikely to result in a reliable interpretation of patent claim
15 scope unless considered in the context of the intrinsic evidence.” *Id.*

16 There are two exceptions to the ordinary meaning construction: “1) when a patentee sets
17 out a definition and acts as his own lexicographer,” and “2) when the patentee disavows the full
18 scope of a claim term either in the specification or during prosecution.” *Thorner v. Sony Comp.*
19 *Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (citing *Vitronics*, 90 F.3d at 1580). To act
20 as a lexicographer, the patentee “must ‘clearly set forth a definition of the disputed claim term’
21 other than its plain and ordinary meaning.” *Id.* (quoting *CCS Fitness, Inc. v. Brunswick Corp.*,
22 288 F.3d 1359, 1366 (Fed. Cir. 2002)). To disavow claim scope, the specification or prosecution
23 history must “make[] clear that the invention does not include a particular feature” even though
24 the language of the claims “might be considered broad enough to encompass the feature in
25 question.” *Id.* at 1366 (citation omitted). The disclaimer must be “clear and unmistakable.”
26 *Comp. Docking Station Corp. v. Dell, Inc.*, 519 F.3d 1366, 1374-75 (Fed. Cir. 2008). The totality
27 of the prosecution history informs the disavowal inquiry. *Id.* at 1379.
28

B. Means-Plus-Function Terms

Under 35 U.S.C. § 112 ¶ 6, a patentee may express claim terms as means or steps for performing a specified function “without the recital of structure, material, or acts in support thereof.” Such means-plus-function claims must be construed “to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.” 35 U.S.C. § 112 ¶ 6. To construe means-plus-function claims, the court must first determine if Section 112 Paragraph 6 applies. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348 (Fed. Cir. 2015). Generally, the use of the term “means” creates a presumption that it does. *See id.* at 1349.

If means-plus-function applies, the court engages in a two-step inquiry to construe the claims: first, “[t]he court must identify the claimed function,” and second, “the court must determine what structure, if any, disclosed in the specification corresponds to the claimed function.” *Id.* at 1351. A structure corresponds to the claimed function if “the specification or prosecution history clearly links or associated that structure to the function recited in the claim.” *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1312 (Fed. Cir. 2012) (quoting *B. Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997)). The structure must be adequate to perform the claimed function. *Id.* If the intrinsic evidence fails to disclose adequate corresponding structure, the claim is indefinite. *Id.*

III. CLAIM CONSTRUCTION

A. U.S. Patent No. RE43,633

1. “beginning position address of [a] textual source material”

Sentius’ Proposed Construction	Zoho’s Proposed Construction	Court’s Construction
first character position of a textual source material	No construction necessary or, in the alternative: the address at which source material starts in an electronic database	the address at which [a] textual source material starts in an electronic database

The term “beginning position address of [a] textual source material” appears in claims 17, 62, 101, and 146 of the ’633 Patent. The parties dispute whether this “beginning position address” refers to a relative character position (according to Sentius) or an absolute address in an electronic

1 database (according to Zoho).⁴ The Court examines the claims, specification, and prosecution
2 history to determine the meaning of this term.

3 First, the language of the claims—“a beginning position address of a textual source
4 material stored in an electronic database”—plausibly reads to refer to the address at which the
5 textual source material begins in an electronic database. (’633 Patent at claims 17, 62, 101, 146.)
6 The original (now cancelled) claims of the ’633 claims were more explicit, reciting “an address on
7 said electronic database for the beginning position of said source material image.” (*Id.* at claim 1.)
8 The reissue proceedings did not substantively amend this requirement, but simply reordered the
9 terms while amending “source material image” to “textual source material.” *See supra* at 6.
10 However, claims 52 and 91, which depend on claims 17 and 62, specifically recite that “the
11 beginning position address is a beginning location of the textual source material in the electronic
12 database.” (*Id.* at claims 52, 91.) Under the doctrine of claim differentiation—which provides
13 guidance but is “not a hard and fast rule”—the presence of these dependent claims “gives rise to a
14 presumption that the limitation in question is not present in the independent claim.” *Phillips*, 415
15 F.3d at 1314-15; *Seachange Int’l, Inc. v. C-COR, Inc.*, 413 F.3d 1361, 1369 (Fed. Cir. 2005).

16 Second, the specification fails to provide guidance as to the meaning of this term. The
17 terms “address,” “electronic database,” “character position,” and even “beginning position” appear
18 nowhere outside the claims of the ’633 Patent. Although the term “character” appears in relation
19 to the preferred use case (translating Japanese Kanji), the specification never describes textual
20 locations in terms of character positions.⁵ (*See* ’633 Patent at 3:1-6, 4:5-22.) Instead, the
21 specification consistently refers to the “beginning of the text.” For example, the specification
22 states that “[t]he location [of a click] is converted into a position offset *from the beginning of the*
23 *text* and used to determine which component word or phrase was selected.” (’633 Patent at 7:42-
24 45 (emphasis added); *see also id.* at 7:33-34.) Figure 2 shows “start” and “end” position indices of

26 ⁴ Zoho initially suggests that no construction is necessary. However, its own proposed
27 constructions—which interpret “beginning position address” as an “address” but “starting” and
“ending point address” as an “offset value”—demonstrate the need for construction.

28 ⁵ The specification also mentions characters (again referring to Japanese Kanji) in relation
to searching for character translations. (*See* ’622 Patent at 9:49-11:3.)

individual words, as measured “based on the position offset from the beginning of the text,” but does not explain how those indices are calculated. (*Id.* at 6:57-59; 7:33-36.) Accordingly, the specification fails to inform the meaning of the “beginning position address” because it refers only to the beginning of the text, not to any address or demarcation for that beginning.

Finally, the prosecution history confirms that “beginning position address” refers to an electronic database address. As an initial matter, the parties dispute whether the prosecution history may be consulted because it relates to the parent application of the reissued claims. Generally, “[c]laim language . . . must be read consistently with the totality of the patent’s applicable prosecution history,” which includes the prosecution history of parent applications. *Biovail Corp. Int’l v. Andrix Pharma., Inc.*, 239 F.3d 1297, 1301 (Fed. Cir. 2001). Further, under 35 U.S.C. § 251(d), a reissued patent may not enlarge the scope of the claims of the original patent if applied-for more than two years from the grant of the original patent (as is the case here).⁶ As part of that rule, reissued claims may not recapture subject matter disclaimed during prosecution of the original application. *N. Am. Container Inc. v. Plastipak Packaging, Inc.*, 415 F.3d 1335, 1349-50 (Fed. Cir. 2005); *see also Vectra Fitness, Inc. v. TNWK Corp.*, 162 F.3d 1379, 1384 (Fed. Cir. 1998) (“[T]he ‘recapture rule’ prevents a patentee from regaining through reissue subject matter surrendered during prosecution, thus ensuring the ability of the public to rely on a patent’s public record.”); *cf. MBO Labs., Inc. v. Becton, Dickinson & Co.*, 474 F.3d 1323, 1332 n.3 (Fed. Cir. 2007). The Court therefore considers the ’720 Patent prosecution history.

As described in the background, the original claims of the ’720 Patent recited “the beginning position of said source material image.” (January 1996 Amendment at 2.) Sentius amended “beginning position” to “*an address on said electronic database for the beginning position of said source material*” to overcome an office rejection over Cassorla. (May 1996 Amendment at 2-6.) By changing “the beginning position” to “an address on [an] electronic database for the beginning position,” Sentius affirmed that “an address” means something

⁶ Although a patentee may avoid this recapture rule by adding other narrowing limitations, the narrowing limitations must be related to the surrendered subject matter. *In re Mostafazadeh*, 643 F.3d 1353, 1359 (Fed. Cir. 2011). Here, the change from “source material” to “textual source material” was arguably limiting but not related to the allegedly disclaimed subject matter.

1 narrower than the beginning position of the text. *See Ajinomoto CO., Inc. v. Int’l Trade Comm’n*,
 2 932 F.3d 1342, 1351 (Fed. Cir. 2019) (“[W]hen a word is changed during prosecution, the change
 3 tends to suggest that the new word differs in meaning in some way from the original word.”).

4 The remarks confirm this interpretation. Sentius distinguished Cassorla’s use of the
 5 “relative position within the document” to fix tags from the ’633 Patent’s “media-independent”
 6 linking scheme. An “address” therefore refers to a media-independent demarcation not
 7 constrained by the structure of a text. Although Sentius contends that the amendment does not rise
 8 to the level of prosecution disclaimer, the remarks nevertheless shed light on the meaning of the
 9 claim terms. *See Fenner Invest.*, 778 F.3d at 1323 (“Any explanation, elaboration, or qualification
 10 presented by the inventor during patent examination is relevant.”); *see also Iridescent Networks,*
 11 *Inc. v. AT&T Mobility, LLC*, 933 F.3d 1345, 1352-53 (Fed. Cir. 2019) (rejecting the argument that
 12 prosecution history is only relevant when it demonstrates disclaimer). Accordingly, the
 13 prosecution history demonstrates that the “beginning position address” refers to an address in an
 14 electronic database, not the relative position in a text.

15 Sentius’ proposed construction—first character position of a textual source material—is
 16 inappropriate for multiple reasons. First, the term “character position” is found nowhere in the
 17 claims, specification, or prosecution history of the ’633 Patent. Sentius cites references to
 18 Japanese kanji in the specification, but that is merely a preferred use case. The specification never
 19 uses characters to denote a beginning or other position in the text. To advance its construction,
 20 Sentius relies primarily on extrinsic evidence to argue that visual editors at the time of the ’633
 21 Patent used character positions to mark the beginning of the text. (*See, e.g.*, Dkt. No. 51
 22 (“Madisetti Decl.”) ¶¶ 99-101.) Extrinsic evidence, however, cannot outweigh the unambiguous
 23 intrinsic evidence in this case. *Philips*, 415 F.3d at 1319.

24 Second, Sentius’ construction reads out the terms “address” and “stored in an electronic
 25 database.” As shown in the prosecution history, the term “address” is narrower than the term
 26 “beginning position,” but Sentius’ construction effectively equates the two. Moreover, Sentius
 27 claims that the text document itself constitutes the “database,” but the claims already require
 28 “textual source material” stored in a database, which suggests that they do not refer to the same

element. Claim construction preferably gives meaning to all claim terms, and Sentius' attempts to read out "address" and "stored in an electronic database" must be rejected. *Haemonetics Corp. v. Baxter Healthcare Corp.*, 607 F.3d 776, 781 (Fed. Cir. 2010).

Finally, Sentius' construction links the beginning position to the position of a "character." But during prosecution, Sentius repeatedly distinguished its invention by arguing that the linking scheme was "media independent," such that it could apply to image, video, and other non-text files. (January 1996 Amendment at 11; May 1996 Amendment at 7.) Even though the reissued claims now limit the source material to text documents, the reissue did not change the method for indexing. The claimed indexing method thus presumably applies to non-textual documents, as well as textual documents, which may not have characters. Sentius' attempt to limit the indexing scheme to documents containing characters is therefore improper.⁷

Accordingly, the Court construes "beginning position address of [a] textual source material" as "the address at which [a] textual source material starts in an electronic database."

2. "starting point address" / "ending point address"

Sentius' Proposed Construction	Zoho's Proposed Construction	Court's Construction
starting character position	an offset value from the beginning position address to the starting point	an offset value for the starting point
ending character position	and offset value from the beginning position address to the ending point	an offset value for the ending point

The terms "starting point address" and "ending point address" appear in claims 17, 22, 62, 101, 106, and 146. The parties agree that these terms refer to the offset from the beginning of the text. However, they disagree whether that offset must be measured in character positions or an

⁷ The parties dispute whether a "character position" could be an "address." That dispute is not relevant to claim construction. Regardless of whether Sentius could prove infringement for products using character positions for this limitation, the intrinsic evidence governs, and it uses the term "address," not "character position."

offset value (which is construed later in this Order).⁸

As an initial matter, the Court agrees that the starting and ending point addresses of the terms are calculated using the offset from the beginning position address. The term “offset” refers to a “value from a beginning point,” according to Dr. Madisetti and the agreed-to constructions in previous litigation.⁹ (Madisetti Decl. ¶ 71; Dkt. No. 51-1, Ex. 3 (“*BlackBerry* Agreed Claim Construction Order”) at 1.) Here, the independent claims require “determining starting point addresses and ending point addresses . . . *based upon the beginning position address.*” (’633 Patent at claims 17, 62, 101, 146 (emphases added).) The specification confirms that “[w]hen the image is created, the cuts are indexed *based upon the position offset from the beginning of the text*” and the “start and end points of the cut text are recorded in the look-up table.” (*Id.* at 7:32-36 (emphasis supplied).) The claims and specification thus suggest that the starting and ending point addresses are determined based on an “offset”—the value from the beginning point of the text.

Moreover, the claims and specification explain that when the user clicks on a term, the underlying word is identified by comparing the offset value of the click to the starting and ending point addresses. The independent claims recite “comparing the offset value” obtained from the user’s selection “with the starting and ending point addresses recorded in the look-up table,” and dependent claim 22 further specifies that the comparison checks whether “the offset value [is] within a range defined by the starting and ending point addresses.” (*Id.* at claims 17, 22, 62, 101, 146.) The specification similarly explains that “[w]hen the user ‘clicks’ within the text image,” the click location is “converted into a position offset” and that offset is “compar[ed] . . . with the start and end values stored in the look-up table.” (*Id.* at 7:41-49.) The starting and ending point addresses are presumably measured on the same metric as the offset value in order to render this

⁸ The parties’ agreement that the starting and ending point addresses refer to offset values is initially difficult to reconcile with the ordinary meaning of “address.” However, the Personal Computer Dictionary defines an “offset” as “a value added to a base address to produce a second address.” (Dkt. No. 50-3 at 58.) The claims thus plausibly refer to “relative addressing” noted in that dictionary, which accords with the ordinary meaning of the term.

⁹ The parties disagree over the construction of “offset value,” but the disagreement centers on prosecution disclaimer, not the ordinary meaning of the term. *See infra* at 17.

1 claimed comparison meaningful.

2 Thus, as the parties agree and as confirmed by the intrinsic evidence, the starting and
3 ending point addressed must be based upon the offset from the beginning of the text. Sentius
4 nevertheless attempts to add the requirement that the starting and ending points are “character
5 positions.” As explained above for “beginning position address,” the claims, specification, and
6 prosecution history do not use the term “character position” and Sentius’ construction lacks
7 support in the intrinsic evidence. Although the specification uses the term “position offset” when
8 describing indexing of the starting and ending points (*id.* at 7:32-36), the claims were amended
9 during prosecution to replace “a start and an end point . . . based upon said beginning position” to
10 “an address on said electronic database for” the start and end points “based upon the beginning
11 position.” (May 1996 Amendment at 2-6.) The term “address” thus presumably has a narrower
12 meaning than position offsets alone.

13 Zoho’s construction, on the other hand, is redundant. The claims already require that the
14 “starting” and “ending point addresses” be “based upon the beginning position address.”
15 Construing the “starting” and “ending point address” as an offset value thus already requires
16 “determining [an offset value for the starting point] and [an offset value for the ending point] of
17 the plurality of discrete pieces *based upon the beginning position address*,” consistent with Zoho’s
18 construction. (*See* ’633 Patent at claims 17, 62, 101, 146.)

19 Accordingly, the Court construes “beginning point address” as “an offset value for the
20 starting point” and “ending point address” as “an offset value for the ending point.”

21 3. “offset value”

22

Sentius’ Proposed Construction	Zoho’s Proposed Construction	Court’s Construction
a value from a beginning point	distance in bytes from a beginning point	a value from a beginning point

25 The term “offset value” appears in claims 17, 21, 22, 62, 101, 105, 106, and 146 of the
26 ’633 Patent. The parties agree that the ordinary meaning of “offset value” refers to a value from a
27 beginning point. However, the parties dispute whether prosecution disclaimer limits this term to
28

1 pure byte offsets in the '633 Patent.

2 As described in the background section, Sentius had made two separate arguments to
3 distinguish the Cassorla reference: first, based on “pure byte offsets,” and second, based on the
4 “unique tagless linking” of the invention. The examiner rejected the first argument because the
5 claim language did not require pure byte offsets. Sentius then added the limitations requiring
6 “addresses” and argued that they provided a non-obvious improvement over Cassorla’s tag-based
7 linking scheme. Sentius now contends that only the second set of remarks create disclaimer.¹⁰
8 According to Sentius, the '633 Patent improves over Cassorla because it removes linking
9 information into a separate table. (*Cf.* '633 Patent at 11:48-53 (describing an advantage of the
10 invention as not embedding information within source material), 6:44-48 (explaining that leaving
11 the text unaltered makes it more compact).) By contrast, Sentius argues that the first set of
12 remarks based on “pure byte offsets” did not manifest “exclusion or restriction, representing clear
13 disavowal of claim scope,” as required for prosecution disclaimer. *See Cont'l Circuits LLC v.*
14 *Intel Corp.*, 915 F.3d 788, 797 (Fed. Cir. 2019). Zoho disagrees and contends that Sentius
15 expressly disavowed linking schemes that do not use “pure byte offsets.”

16 Generally, if a patentee distinguishes prior art on multiple grounds during prosecution,
17 disclaimer applies to each ground. *Tech. Props. Ltd. LLC v. Huawei Techs. Co., Ltd.*, 849 F.3d
18 1349, 1358 (Fed. Cir. 2017). That holds true even if the disclaimer is broader than necessary and
19 not relied on by the examiner. *Saffran v. Johnson & Johnson*, 712 F.3d 549, 559 (Fed. Cir. 2013).
20 For example, in *Saffran*, the patentee had distinguished a prior art reference by arguing that the
21 invented device “is a sheet rather than a pre-formed chamber.” *Id.* The patentee claimed that
22 disclaimer applied only to pre-formed chambers, as used in the prior art, not to sheets as a whole.
23 *Id.* However, the Federal Circuit rejected that argument, finding that the patentee “presented two
24 bases for distinguishing” the prior art and that disclaimer applied to both, even if the examiner
25 only relied on the latter. *Id.* Thus, by characterizing the invention as “a sheet rather than a pre-

26
27 ¹⁰ Although the parties agree that the two arguments are “related,” Zoho provides no
28 evidence that tagless addresses require pure byte offsets. Notably, during the reissue proceedings,
the examiner cited the “tagless” argument—but not the “pure byte offset” argument—in granting
allowance over Cassorla. (*See* April 13, 2012 Notice of Allowance at 3.).

1 formed chamber,” the patentee disclaimed *both* pre-formed chambers *and* non-sheets, regardless
 2 of which argument convinced the examiner. *See id.*; *accord Comp. Docking Station Corp. v. Dell,*
 3 *Inc.*, 519 F.3d 1366, 1378 (Fed. Cir. 2008).

4 A different rule, however, may follow where the examiner expressly rejects the patentee’s
 5 argument. A growing number of district courts have denied prosecution disclaimer in such
 6 circumstances. *See Power Integrations, Inc. v. ON Semiconductor Corp.*, 396 F. Supp. 3d 851,
 7 864 (N.D. Cal. 2019); *Motiva Patents, LLC v. Sony Corp.*, No. 9:18-CV-180-JRG-KFG, 2019 WL
 8 3933670, at **19-21 (E.D. Tex. Aug. 20, 2019); *Vertical Tank Inc. v. BakerCorp*, No. 1:11-CV-
 9 00145-LJO-JLT, 2019 WL 2207668, at **11-12 (E.D. Cal. May 22, 2019). As reasoned by those
 10 courts, the purpose of prosecution disclaimer is to protect the public’s reliance on definitive
 11 statements made during prosecution. *Power Integrations*, 396 F. Supp. 3d at 863-64 (citing *Aylus*
 12 *Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1359 (Fed. Cir. 2017)¹¹). In particular, prosecution
 13 disclaimer protects competitors’ rights to rely on the patentee’s remarks when determining their
 14 lawful conduct. *Id.* However, once the examiner expressly rejects a patentee’s construction, a
 15 competitor cannot reasonably rely on the patentee’s remarks because the examiner “already said
 16 that the patentee’s construction is incorrect and that the proper construction is broader.”¹² *Id.*

17 These decisions stand in some tension with Federal Circuit precedent. As explained above,
 18 the Federal Circuit has generally held that “the interested public has the right to rely on the
 19 inventor’s statements made during prosecution, without attempting to decipher whether the
 20 examiner relied on them, or how much weight they were given.” *Fenner Invest.*, 778 F.3d at
 21 1325. At least two cases suggest (without holding) that prosecution disclaimer applies to rejected
 22 arguments. First, in *American Piledriving Equipment, Inc. v. Geoquip, Inc.*, the court relied on an

24 ¹¹ *Aylus* articulated two policy rationales for prosecution disclaimer: (1) protecting the
 25 public’s reliance on definitive statements in the prosecution history, and (2) ensuring that claims
 are not construed one way to obtain allowance and another way against accused infringers. 856
 F.3d at 1359-60. Only the first rationale is at issue for arguments rejected by the examiner.

26 ¹² The Federal Circuit adopted similar reasoning in a recent unpublished decision. *See*
 27 *Galderma Labs., L.P. v. Amneal Pharmas. LLC*, No. 2019-1021, 2020 WL 1487264, at **2-3
 28 (Fed. Cir. Mar. 25, 2020) (finding no disclaimer where the PTAB’s rejection of the patentee’s
 argument put the public on notice that the claim term was not so limited).

1 argument rejected by the examiner during prosecution to support an “ordinary meaning”
2 construction. 637 F.3d 1324, 1336 (Fed. Cir. 2011). Although the examiner had “explicitly
3 disagreed” with the disclaiming argument made during prosecution, the examiner’s reliance was
4 not required for disclaimer to apply, and the court found that the patentee “cannot attempt to
5 distance itself from the disavowal” on that basis. *Id.* at 1336. *But see Galderma Labs.*, 2020 WL
6 1487264, at *3 (distinguishing *Geoquip* because it ultimately relied on the ordinary meaning—not
7 disclaimer—for its construction).

8 Second, in *Springs Window Fashions LP v. Novo Industries, L.P.*, the court considered
9 prosecution disclaimer based on an argument that the examiner initially rejected. 323 F.3d 989,
10 994-96 (Fed. Cir. 2003). The court first noted that “it is not clear that the examiner adhered to that
11 position at the time of allowance” because the notice of allowance was silent as to the examiner’s
12 reasons. *Id.* at 995. However, the court then found that even if the examiner had disagreed with
13 the patentee’s argument, disclaimer still applied. *Id.* Merely shifting focus during prosecution
14 “does not blunt the impact of [disclaiming] remarks made to overcome the prior rejection.” *Id.*
15 (quoting *Laitram Corp. v. Morehouse Indus., Inc.*, 143 F.3d 1456, 1462 (Fed. Cir. 1998)).
16 Moreover, the examiner applies a different standard—the “broadest reasonable interpretation”—in
17 policing the claims for validity compared to the district courts. *Id.* It is therefore “not surprising
18 that an examiner would not be satisfied with the applicant’s insistence that particular claim
19 language distinguishes a prior art reference, but that a court would later hold the patentee to the
20 distinction he pressed during prosecution.” *Id.* Thus, because the patentee did not retract its
21 statements or acquiesce to the examiner’s view, disavowal applied. *Id.*

22 Neither of these cases expressly held that prosecution disclaimer applies to rejected
23 arguments. However, in *Ecolab, Inc. v. FMC Corp.*, 569 F.3d 1335 (Fed. Cir. 2009), the court
24 found that the examiner’s rejection *did* preclude disclaimer. There, the patentee argued during
25 prosecution that its invention was different from the prior art because it required the use of
26 peracetic acid alone as a sanitizer. *Id.* at 1343. The examiner rejected that argument because the
27 claims required a sanitizer “which consists essentially of” peracetic acid, thus allowing other
28 antimicrobial agents. *Id.* The patentee then made a *different* argument to distinguish the prior art

1 and “never repeated the allegedly disclaiming statements” again. *Id.* The Federal Circuit found
 2 no disclaimer applied because “a reasonable reader of this prosecution history could conclude that
 3 [the patentee’s] initial statements . . . were hyperbolic or erroneous, that the Examiner corrected
 4 [the patentee’s] error in the following communication, [and] that [the patentee] recognized its error
 5 and never again repeated or relied upon the erroneous rationale.” *Id.* Accordingly, the
 6 prosecution history *as a whole* did not demonstrate clear and unmistakable disavowal.¹³ *Id.*

7 Taken together, these cases suggest that an examiner’s rejection nullifies a disclaiming
 8 argument when it renders the patentee’s remarks ambiguous or subject to multiple interpretations.
 9 By itself, the examiner’s rejection of a patentee’s limiting argument does not affect disclaimer
 10 because it only demonstrates that the “broadest reasonable interpretation” is not so limited. Put
 11 differently, while the public is on notice that the “broadest reasonable interpretation” of the claims
 12 is not as limited as the patentee suggests, it may still rely on the patentee’s statements to determine
 13 a lawful course of conduct under *Philips*. *Cf. Aylus*, 856 F.3d at 1359. On the other hand, where
 14 the patentee makes an apparently erroneous¹⁴ argument, the examiner corrects the error, and the
 15 patentee shifts to a different argument, this course of conduct in the prosecution of the patent does
 16 not evidence what would normally be considered an explicit disavowal. *See Ecolab*, 569 F.3d at
 17 1343. In these cases, the patentee’s non-renewal of the argument may indicate recognition of the
 18 error and acquiescence to the examiner’s view. *See id.*; *cf. Springs Window*, 323 F.3d at 995
 19 (recognizing that “acquiescence” prevents disclaimer).

20 Accordingly, the Court examines the “pure byte offset” argument in light of this
 21 distinction. As an initial matter, *Sentius*’ statement that the claims require “pure byte offsets” was
 22 clearly erroneous when made. At the time of the submission, the claims recited a “beginning

23
 24 ¹³ Because the patentee in *Springs Window* maintained its disclaiming argument in the face
 of the examiner’s rejection, there was no similar ambiguity in that case. *See* 323 F.3d at 994.

25 ¹⁴ The standard for finding “erroneous” arguments requires it to be contrary to the intrinsic
 26 evidence. *See Teva Pharma. USA, Inc. v. Sandoz, Inc.*, 789 F.3d 1335, 1344-45 (Fed. Cir. 2015).
 27 For example, in *Biotex Biologische Naturverpackungen GmbH & Co. KG v. Biocorp, Inc.*, the
 28 court declined to limit the claims based on a prosecution history statements that were contrary to
 the plain language of the claims and specification, as well as other statements in the prosecution
 history. 249 F.3d 1341, 1348 (Fed. Cir. 2001).

position” of the source material, “a start and an end point” of discrete pieces, and “comparing” the offset value of a user selection to the recorded start and end points. (January 1996 Amendment at 2.) Nothing in the claims or specification required “pure byte offsets.” The examiner’s rejection pointed out the error. After the rejection, Sentius held an interview with the examiner, during which the examiner indicated that amended claims that require “addresses” would overcome the rejection. Sentius then amended the claims to require “addresses” and distinguished Cassorla’s use of “tags.” As in *Ecolab*, Sentius “never repeated the allegedly disclaiming statements” based on “pure byte offsets,” merely noting the examiner’s rejection of that argument.

The totality of Sentius’ prosecution history remarks regarding Cassorla could thus be interpreted in two ways: (1) Sentius amended the claims to require “addresses” to encompass the requirement of “pure byte offsets,” after the examiner noted that the claims did not include it, or (2) Sentius recognized its error in arguing that the claims require “pure byte offsets” and—abandoning the argument—pivoted to a different basis to distinguish Cassorla.¹⁵ Zoho provides no evidence conclusively demonstrating the first interpretation or that the use of “addresses” requires “pure byte offsets.” Sentius’ remarks thus qualify as ambiguous and cannot create disclaimer. *See MIT v. Shire Pharma., Inc.*, 839 F.3d 111, 1119 (Fed. Cir. 2016) (“Where the alleged disavowal is ambiguous, or even ‘amenable to multiple reasonable interpretations,’ we have declined to find prosecution disclaimer.” (citation omitted)).

Accordingly, the Court finds that prosecution disclaimer does not apply and that the claims are not limited to “pure byte offsets.” The Court therefore construes “offset value” according to ordinary meaning of “a value from a beginning point.”

//

//

¹⁵ Judge Armstrong adopted the first interpretation in *Flyswat* but only on the basis of prosecution disclaimer. (*See Flyswat Markman* Order at 36 (“The meaning of ‘address’ includes ‘pure byte offset’ because this meaning was expressly given to the process in order to avoid prior art, and therefore, ‘pure byte offset’ must be read into the definition of ‘addresses.’” (emphasis supplied).) In other words, Judge Armstrong did not find that “addresses” already required “pure byte offsets,” but only read that meaning into the terms.

4. “image of the source material” / “image of the textual source material” / “source material image”

Sentius’ Proposed Construction	Zoho’s Proposed Construction	Court’s Construction
an image displayed on a computer screen derived from the source file	an image displayed on a computer screen derived from the text created by reassembly of the cut pieces of a source material	an image displayed on a computer screen derived from the [textual] source material

The term “image of the source material” appears in claims 17 and 101, while the related term “image of the textual source material” appears in claims 62 and 146. The term “source material image” appears in dependent claims 19, 23, 56, 95, 103, 107, 140, and 179. The parties agree that these terms refer to the image displayed on the computer screen to the user. However, they disagree over whether the image must be the result of reassembling the cut pieces of the original textual source material (as Zoho contends) or must simply be “derived” from the original source file (as urged by Sentius).

The language of the claims does not suggest that the “image of the source material” must be created through reassembly of cut pieces. The claims recite that the original textual source material is “cut[] . . . into a plurality of discrete pieces,” which are then indexed, recorded, and linked to external content. (*See* ’633 Patent at claims 17, 62, 101, 146.) A user then selects a portion of “an image of the source material.” The compilation step by which the source material is turned into the resulting “image” is absent from the independent claims. Instead, the dependent claims recite compiling the source material image from the cut pieces. (*See id.* at claims 19, 103.) Claim differentiation thus suggests that reassembly from cut pieces to create the image is required for the dependent, but not independent, claims.¹⁶ *See Phillips*, 415 F.3d at 1315.

The specification provides only one embodiment for the compilation step, which is consistent with both parties’ constructions. It states that “[d]uring compilation, the cut text is reassembled to create an image of the text that the end user sees” and “an image of the text is

¹⁶ The independent claims also use different words for the cut text pieces of the source material and the recompiled image—“discrete pieces,” not “discrete portion.” (*See* ’633 Patent at claims 17, 62, 101, 146.)

created. ('633 Patent at 7:23-25, 7:32-33.) The “cut pieces” refer to the word cuts taken from the original source material. (*See id.* at 7:8-12.) Although the specification describes the indexing and linking during compilation as a “key feature of the system format,” it does not suggest that the process of reassembling cut pieces is itself important. Accordingly, there is no indication of disavowal limits the claims to this embodiment. *See Akamai Techs., Inc. v. Limelight Networks, Inc.*, 805 F.3d 1368, 1376 (Fed. Cir. 2015) (“[E]ven where a patent describes only a single embodiment, claims will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expression of manifest exclusion or restriction.”).

Neither party cites the prosecution history. Zoho argues, however, that Sentius’ construction is inconsistent with the *Flyswat* litigation. There, Sentius argued that “source material image” refers to the “binary embodiment of the source material,” as well as “the source material once it has been entered into the system.” (*See* Dkt. No. 52-9 (*Flyswat Markman Order*) at 20-25.) Zoho also notes that Judge Armstrong found that “source material image” does not appear in the specification. (*Id.* at 22.) The Court detects no inconsistency. In *Flyswat*, Sentius was arguing against a construction similar to Zoho’s, and Judge Armstrong’s observation supports neither party’s construction. More plausibly, Zoho argues that the term “source file” does not appear in the claims. The Court agrees and finds that “source material” is a more appropriate term to refer to the original source material.

Accordingly, the Court construes “image of the source material,” “image of the textual source material,” and “source material image” as “an image displayed on a computer screen derived from the [textual] source material.”

5. “look-up table”

Sentius’ Proposed Construction	Zoho’s Proposed Construction	Court’s Construction
a data structure that contains values for searching or retrieving	an array or matrix of data that contains values for searching	an array or matrix of data that contains values for searching

The term “look-up table” appears in claims 17, 21, 62, 101, 105, and 146 of the ’633 Patent. The parties dispute (1) whether the “table” must be an array or matrix, and (2) whether the

1 “look-up” function must include searching or retrieving, or only searching.

2 The claims require the look-up table to store the starting and ending point addresses of the
3 cut word pieces together with links to external references. (’633 Patent at claims 17, 62, 101,
4 146.) The offset value of a user’s selection is then compared with those addresses in the look-up
5 table to identify the selected pieces. (*Id.*) The claims thus require the look-up table to be used for
6 search, but not retrieval. The specification shows the “look-up table” as a table (matrix) in Figure
7 2 but does not substantively explain its requirements. (*See id.* at Fig. 2.) Instead, the specification
8 merely states that the look-up table is used to store and compare start and end point indices of the
9 discrete pieces, as required by the claims. (*See id.* at 6:57-59, 7:34-39, 7:45-47.) When the match
10 is found, the external reference is “resolved” and retrieved, but not necessarily by the look-up
11 table. (*See id.* at 6:59-60, 7:47-49.) Accordingly, the intrinsic evidence suggests that the “look-up
12 table” is a table (such as the one shown in Figure 2) used for searching.

13 The extrinsic evidence confirms this interpretation. *Both* parties’ dictionaries define a
14 “table” as an array or matrix used for searching. (*See* Dkt. No. 52-11 (Zoho’s dictionary defining
15 “lookup table” as “an array or matrix of data”), 52-14 (same), 50-3 at 70 (Sentius’ dictionary
16 defining “lookup” as “[a] data search performed within a predefined table of values (array, matrix,
17 etc.)”), 50-3 at 10-11 (Sentius’ dictionary defining “lookup table” as consisting of “rows and
18 columns of data”).) Sentius itself adopted the same construction in previous litigation. (*See* Dkt.
19 No. 52-10 (“*Blackberry Markman Chart*”) at 3.) Sentius’ sole evidence for its construction is an
20 online “Tech Terms” dictionary that defines an array as a “data structure.” (Dkt. No. 50-3 at 65.)
21 That explanation hardly supports Sentius’ construction—an array may be a data structure, but not
22 all data structures are arrays.

23 In short, there is no reasonable debate that a look-up *table* is an array or matrix used for
24 searching data. As for the second dispute, there is no support for Sentius’ addition of “retrieving”
25 in the intrinsic evidence. Sentius’ own expert appears to agree that only searching is required.
26 (*See* Madisetti Decl. ¶ 72.)

27 Accordingly, the Court construes “look-up table” as “an array or matrix of data that
28 contains values for searching.”

6. “means for compiling the source material image from at least the plurality of discrete pieces”

Sentius’ Proposed Construction	Zoho’s Proposed Construction	Court’s Construction
<u>Function</u> : compiling the source material image from at least the plurality of discrete pieces	<u>Function</u> : compiling the source material image from at least the plurality of discrete pieces	<u>Function</u> : compiling the source material image from at least the plurality of discrete pieces
<u>Structure</u> : a computer having a visual editor and user interface programmed to perform the recited function, and equivalents thereof	<u>Structure</u> : None (the claim is indefinite)	<u>Structure</u> : None (the claim is indefinite)

The term “means for compiling the source material image from at least the plurality of discrete pieces” appears in claims 19 and 103 of the ’633 Patent. The parties agree that 35 U.S.C. § 112 ¶ 6 (means-plus-function) applies. The parties further agree on the function as “compiling the source material image from at least the plurality of discrete pieces.” However, they disagree over whether the specification discloses adequate structure to perform this function.

Under Section 112 ¶ 6, a party that chooses to recite a claim term in means-plus-function form must disclose specific structures in the specification linked to that function. *Blackboard, Inc. v. Desire2Learn, Inc.*, 574 F.3d 1371, 1382 (Fed. Cir. 2009). In computer-implemented claims, the specification must disclose a specific algorithm for performing a function. *Noah Sys.*, 675 F.3d at 1312. The structure must be adequate to perform the claimed function and clearly linked to that function in the specification. *Id.* at 1311. Although the adequacy of disclosed structure is evaluated from the perspective of a person of ordinary skill in the art, “the testimony of one of ordinary skill in the art cannot supplant the total absence of structure from the specification.” *Id.* at 1312 (citation omitted). In other words, “[w]here the specification discloses no algorithm, the skilled artisan’s knowledge is irrelevant.” *EON Corp. IP Holdings LLC v. AT&T Mobility LLC*, 785 F.3d 616, 624 (Fed. Cir. 2015) (citation omitted).

Here, Sentius contends that the corresponding structure for the “compiling” function is “a computer having visual editor and user interface programmed to compile a source material image from at least the plurality of discrete pieces.” As an initial matter, a “computer . . . programmed to

compile” is insufficient structure—if Sentius wishes to rely on a specially-programmed computer, it must specify an algorithm the computer is programmed to perform. *See WMS Gaming, Inc. v. Int’l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999). The Court therefore interprets Sentius’ construction to rely on visual editors and user interfaces.

Sentius cites five parts of the specification as support. First, Sentius cites column 7, lines 3-12, which describes the “word cutting process” accomplished by a visual editor. Word cutting, however, is not compilation of the source material image.¹⁷ This disclosure thus fails to link the visual editor to the compilation function. *See JVW Enter., Inc. v. Interact Access., Inc.*, 424 F.3d 1324, 1330 n.1 (Fed. Cir. 2005). Second, Sentius cites column 5, lines 15-23, which states that a visual editor uses a grammar parser and link engine to build an index of words in a text file. Although the specification states that compiling an image involves creating an index, the claims require “means for compiling” to be separate from the “means for indexing.” (*See* ’633 Patent at 7:32-34, claim 19, claim 103.) The structures provided for “indexing” are thus not linked to the “compiling the source material image” function. Third, Sentius cites column 7, lines 22-49. This disclosure describes the compile function as follows:

After linking, the text and references are compiled. During compilation, the cut text is reassembled to create an image of the text that the end user sees. At this point additional formatting may be applied to the text for final display. Indices of the component words and phrases are built with links to the reference material and duplicate references are consolidated to conserve memory and storage requirements. A key feature of the system format is the method by which the original book text is indexed and linked with the external references. During the compile process an image of the text is created. When the image is created, the cuts are indexed based upon the position offset from the beginning of the text. The start and end points of the cut text are recorded in a look-up table along with the links to external references. The number and type of links for any component is dynamic. This means that a single entry could have several different references attached to it, each containing different forms of data.

(’633 Patent at 7:22-39.) Despite providing a detailed description of compiling, this disclosure fails to describe any structure for performing that function. Instead, the specification uses the passive voice—“are compiled,” “is reassembled,” “is created,” etc.—and fails to link the compile

¹⁷ The specification states that word cuts, linking, and compilation constitute different steps. (*See* ’633 Patent at 7:1-2.)

function to any structure. It further fails to describe an algorithm, merely restating the compiling function. Fourth, Sentius cites column 5, lines 34-65, along with Figures 1, 2, and 3, which describes components of the user interface. Although the specification describes several functions for the user interface, image compilation is not one of them. (*See id.* at 5:34-38.) Finally, Sentius cites column 7, lines 41-45, for the proposition that a user may interact with an image after compilation. This disclosure describes neither structure nor the compiling function.

Because the specification discloses *no* structure for the compiling function, Sentius may not rely on extrinsic evidence to fill in the gap. *See EON Corp. IP Holdings*, 785 F.3d at 624; *Noah*, 675 F.3d at 1313; *Blackboard*, 574 F.3d at 1385. Sentius cites *AllVoice Computing PLC v. Nuance Communications, Inc.*, 504 F.3d 1236, 1245 (Fed. Cir. 2007), *Medical Instrumentation and Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1214 (Fed. Cir. 2003), and *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1340 (Fed. Cir. 2016), to argue otherwise, but none of these cases support using extrinsic evidence in the absence of disclosed structure. In *Allvoice*, the specification disclosed an algorithm (in Figure 8A) and expert testimony merely supported the sufficiency of that algorithm. 504 F.3d at 1245. In *Elekta*, the court noted cases where structures disclosed in the specification were found adequate but distinguished its own situation because there was no link between the structure and the function in the specification. 344 F.3d at 1214-15. And in *Enfish*, the court found that algorithms disclosed in the specification were adequate based on the knowledge of an ordinary artisan. 822 F.3d at 1340. None of these cases involved a complete absence of structure associated with a claimed function in the specification.¹⁸

Accordingly, because the intrinsic evidence fails to disclose structure for “compiling the source material image,” and Sentius cannot rely on extrinsic evidence to fill the void, the Court finds that claims 19 and 103 are indefinite. *See Noah*, 675 F.3d at 1312 (holding that a claim is indefinite if “a person of ordinary skill in the art would be unable to recognize the structure in the

¹⁸ Sentius appears to believe that because the specification discloses some structures (e.g., a visual editor), and a person of ordinary skill in the art would know that those structures could perform the claimed functions, there is no need for the specification to link the two. Sentius cites no case law for that proposition. As explained in *Noah*, a structure qualifies as “corresponding structure” only if “the specification or prosecution history ‘clearly links or associates that structure to the function recited in the claim.’” 675 F.3d at 1311 (citation omitted).

specification and associate it with the corresponding function in the claim.”).

7. “means for converting the display address of the selected discrete portion to an offset value from the beginning position address”

Sentius’ Proposed Construction	Zoho’s Proposed Construction	Court’s Construction
<p><u>Function</u>: converting the display address of the selected discrete portion to an offset value from the beginning position address</p> <p><u>Structure</u>: a computer having a visual editor and an electronic viewer module programmed to use an index to determine the offset value from the beginning position address of the selected horizontal and vertical coordinates, and equivalents thereof</p>	<p><u>Function</u>: converting the display address of the selected discrete portion to an offset value from the beginning position address</p> <p><u>Structure</u>: None (the claim is indefinite)</p>	<p><u>Function</u>: converting the display address of the selected discrete portion to an offset value from the beginning position address</p> <p><u>Structure</u>: None (the claim is indefinite)</p>

The term “means for converting the display address of the selected discrete portion to an offset value from the beginning position address” appears in claims 17 and 101 of the ’633 Patent. As with the previous claim term, the parties agree both that 35 U.S.C. § 112 ¶ 6 applies and the function at issue as “converting the display address of the selected discrete portion to an offset value from the beginning position address.” However, they disagree over whether the specification discloses adequate structure to perform this function.

Sentius contends that the corresponding structure is “a computer having a visual editor and an electronic viewer module programmed to use an index to determine the offset value from the beginning position address of the selected horizontal and vertical coordinates.” Sentius again fails to identify an algorithm performed by the “programmed computer,” beyond specifying the use of an index. Sentius cites three parts of the specification in its attempt to support its construction. The Court addresses each.

First, Sentius cites Figure 2, which shows a flow diagram “in which the mechanism for indexing and linking text to external references is shown.” (’633 Patent at 6:48-50.) Figure 2,

1 however, only shows that “click at (100, 75)” is converted to “offset = 25.” (*See id.* at Fig. 2.)
 2 The specification provides no further detail to explain the conversion, merely stating that “[t]he
 3 click position is determined and used to calculate an offset value within the text”—e.g., when “the
 4 user clicks at a particular location” like “horizontal and vertical coordinates 100 and 75,” “an
 5 offset value of 25 is returned.” (*Id.* at 6:53-57.) This disclosure fails to provide any algorithm or
 6 recite any structure for the conversion function.

7 Second, Sentius cites column 7, lines 40-45, which states that when the “user interacts with
 8 the electronic book using a pointing device” and “‘clicks’ within the text image,” “the location of
 9 the pointer is determined” and “converted into position offset from the beginning of the text.” (*Id.*
 10 at 7:40-45.) Once more, the specification uses the passive voice and fails to identify any structure
 11 or algorithm for performing the converting function.

12 Third, Sentius cites column 5, lines 34-38, which describes a user interface with an
 13 electronic viewer that provides additional functions—none of which involve converting a user
 14 click to an offset value. (*See id.* at 5:34-38 (listing index management, user display, a table of
 15 contents, a pop-up display, and a personal dictionary as the viewer functions).) The viewer is thus
 16 not linked to the converting function in the specification.

17 Accordingly, as with the previous term, the specification fails to disclose and link specific
 18 structures or algorithms to the “converting a display address . . . to an offset value” function.
 19 Because the specification discloses *no* algorithm and *no* structure, Sentius may not rely on the
 20 background knowledge of a person of ordinary skill in the art to supply this element. *EON Corp.*
 21 *IP Holdings*, 785 F.3d at 624; *Noah*, 675 F.3d at 1313; *Blackboard*, 574 F.3d at 1385.

22 The Court therefore finds that the specification fails to disclose corresponding structure for
 23 “means for converting the display address of the selected discrete portion to an offset value from
 24 the beginning position address” and that claims 17 and 101 are indefinite for that reason

25 //

26 //

B. U.S. Patent No. 7,672,985

1. *“data objects associated with a term database” / “data objects associated with the term database” / “data objects associated with a database”*

Sentius’ Proposed Construction	Zoho’s Proposed Construction	Court’s Construction
computer readable data structures that include data from [a/the] [term] database	computer-readable data structures that include data from [a/the] [term] database and rules for processing the one or more documents and linking content with identified terms	computer readable data structures that include data from [a/the] [term] database

The term “data objects associated with a/the [term] database” appears in claims 1, 11, 20, 21, and 36 of the ’985 Patent. The parties agree that the “data objects” are “computer readable data structures that include data from [a/the] [term] database.” However, Zoho seeks to add the additional requirement that the data objects include “rules for processing [] one or more document” and for “linking content with identified terms.”

Zoho relies on two parts of the specification to suggest that the invention requires linking and processing rules. First, Zoho cites the abstract, which states that “[d]ata objects that represent the contents of the database and templates are syndicated to remote servers” and used “to execute linking rules without requiring a connection to the database.” (’985 Patent at Abstract.) Claims 1, 11, and 20 already require the data objects “to link . . . content with [] at least one term”—a substantively similar requirement as executing linking rules. Zoho provides no evidence that linking “rules” specifically are required, and even if it did, the abstract does not state that the data objects contain such rules. Instead, the abstract merely states that the data objects are used to execute such rules.

Second, Zoho cites the summary of the invention section, which states that “[i]nformation from the database needed to create links and the rules for linking to database content are syndicated to remote servers.” (*Id.* at 2:14-16.) The summary of the invention further states that the RichLink Processor downloads “the data structures necessary to perform high-speed tagging of the text and to execute the tagging rules without requiring a connection to the database.” (*Id.* at 2:47-52.) Tagging, however, is not required for the independent claims. Thus, even under Zoho’s interpretation, the summary of the invention section does not describe necessary features of all

claims. Moreover, the summary of the invention section does not state that the data objects contain the tagging rules, but only that they are “necessary” to execute such rules.

Zoho’s proposed construction makes clear that it seeks to import the requirement for template objects into the independent claims. (*See id.* at 8:38-42 (“The Template Object . . . contains the rules for processing and linking a file . . .”).) But template objects are required for dependent—not independent—claims. The extensive requirements of the *independent* claims make clear that only term database data objects are required for claims 1, 11, and 20, while any data objects satisfy claims 21 and 36. Although Zoho is correct that the specification describes downloading all data structures necessary to perform linking, this appears to be an advantage—not a requirement—of the claims.¹⁹ Since templates themselves are not required by the claims, template objects cannot be required either.

Accordingly, the Court construes “data objects” as “computer readable data structures that include data from [a/the] [term] database.”

2. *“parsing one or more documents to identify at least one term based on at least one rule” / “parsing one or more source documents to identify at least one term based on one or more predetermine rules”*

Sentius’ Proposed Construction	Zoho’s Proposed Construction	Court’s Construction
breaking one or more documents into segments to identify at least one term based on at least one rule	breaking one or more documents into segments and creating an index of those segments and using at least one rule to identify at least one term in the index	breaking one or more documents into segments to identify at least one term based on [at least rule] / [one or more predetermined rules]

The term “parsing one or more [source] documents to identify at least one term based on at least one rule [one or more predetermined rules]” appears in claims 1, 11, 20, and 21 of the ’985 Patent. The parties agree that “parsing” means “breaking one or more documents into segments.” The parties further agree that parsing is performed “to identify at least one term based on at least

¹⁹ Even if the Court were persuaded that the claims required syndication of all data objects needed to perform linking, Zoho’s proposed construction does not capture this requirement because it is satisfied whenever only some of the data and rules are syndicated.

one rule.”²⁰ However, they disagree whether creating an index of those segments is required.

The ordinary meaning of “parse” appears to be “to break input into smaller chunks so that a program can act upon the information.” (*See* Dkt. No. 50-3 at 54 (“Microsoft Press Computer Dictionary”).) Zoho contends that indexing is required based on a statement in the specification that “[f]iles matching the specified types are parsed 710 using natural language processing to tokenize the text into significant objects such as words and phrases until a full index of all words and phrases is created.” (’985 Patent at 6:57-60.) However, Zoho concedes that this describes an embodiment, not the invention on the whole. The specification also states that “[f]rom this full index, terms of interest are chosen using a set of rules,” but this too is an embodiment. (*Id.* at 6:61-62.) Zoho does not suggest that disclaimer or lexicography apply.

On balance, Zoho fails to convince that the ordinary meaning of “parsing” requires creating an index. Absent lexicography or disavowal, the Court declines to import this limitation into the claims. *See Thorner*, 669 F.3d at 1365; *Martek Biosci. Corp.*, 579 F.3d at 1380-81. The Court therefore construes “parsing one or more documents” as “breaking one or more documents into segments.”

3. “lexicon object”

Sentius’ Proposed Construction	Zoho’s Proposed Construction	Court’s Construction
computer readable representation of content used to match terms with content or to create tags to assist in matching terms to content	computer-readable data structure that provides a local representation of the content of the term database and data required to match terms and create tags	computer-readable data structure that provides a local representation of the content of the term database

The term “lexicon object” appears in claims 8 and 18 of the ’985 Patent. The parties substantively agree that the lexicon object is a data object and therefore “a computer readable data structure.” The parties further agree that the lexicon object provides a local representation of the

²⁰ Despite using different language, Zoho’s construction of “using at least one rule to identify at least one term in the index” is identical to Sentius’ proposal, except for the requirement of an index. Since “to identify at least one term based on at least one rule” is required by the claims, there can be no reasonable dispute regarding this requirement.

term database. However, the parties disagree whether the data in the lexicon object is used to match terms *and* create tags, or only one or the other.

As an initial matter, the claims already specify that the lexicon object is used “for identifying at least one term for tagging in a source page.” (*Id.* at claims 8, 18.) The parties’ additional requirements stem from a statement in the specification that “[t]he Lexicon Object contains data required to match terms and create tags.” (*Id.* at 9:23-24.) However, the parties ignore the remainder of the statement, which provides examples: “*such as* a representation of the terms in the database optimized for fast matching by the RichLink Processor, the TermID from the Term Database, the DictionaryID from the Term Database, *and other Term Database content* for which fast access is required, such as annotation content.” (*Id.* at 9:24-29 (emphasis added).) As these examples make clear, the data “required to match terms and create tags” is data from the term database—not all data required to match terms and create tags.

The specification confirms this interpretation by expressly defining the “lexicon object” as providing a local representation of the content of the term database so that a direct connection to the term database is not required. (*Id.* at 9:19-29.) The specification further states that the RichLink Processor uses the lexicon object “to identify what terms should be tagged in the source text.” (*Id.* at 8:51-54.) And it identifies other structures—such as the template object containing “the format of the tag”—that are also necessary to create tags. (*Id.* at 9:42-52.) Thus, the specification makes clear that the lexicon object is a local representation of the term database that contains *some* of the data required for tagging—specifically, the data required from the term database. Because the claims already recite the amount of data required—enough to identify at least one term for tagging in a source page—importing additional requirements is improper.

Accordingly, the Court construes “lexicon object” as a “computer-readable data structure that provides a local representation of the content of the term database.”

IV. CONCLUSION

Based on the foregoing, the Court provides the foregoing constructions of the claim terms.

Term	Construction
beginning position address of [a] textual source material	the address at which [a] textual source material starts in an electronic database
starting point address / ending point address	an offset value for the starting point and offset value for the ending point
offset value	a value from a beginning point
image of the source material / image of the textual source material / source material image	an image displayed on a computer screen derived from the [textual] source material
look-up table	an array or matrix of data that contains values for searching
means for compiling the source material image from at least the plurality of discrete pieces	<u>Function</u> : compiling the source material image from at least the plurality of discrete pieces <u>Structure</u> : None (the claim is indefinite)
means for converting the display address of the selected discrete portion to an offset value from the beginning position address	<u>Function</u> : converting the display address of the selected discrete portion to an offset value from the beginning position address <u>Structure</u> : None (the claim is indefinite)
data objects associated with a term database / data objects associated with the term database / data objects associated with a database	computer readable data structures that include data from [a/the] [term] database
parsing one or more documents to identify at least one term based on at least one rule / parsing one or more source documents to identify at least one term based on one or more predetermine rules	breaking one or more documents into segments to identify at least one term based on [at least rule] / [one or more predetermined rules]
lexicon object	computer-readable data structure that provides a local representation of the content of the term database

IT IS SO ORDERED.

Dated: June 12, 2020



YVONNE GONZALEZ ROGERS
UNITED STATES DISTRICT COURT JUDGE